

## OPTICAL LINK ADJACENCY DISCOVERY PROTOCOL AND AN OPTICAL NETWORK THEREFOR

### ABSTRACT OF THE INVENTION

An optical link adjacency discovery protocol is provided. The protocol includes a simple format that includes an identifier field of a local node and facility and an identifier field of an echo node and facility. An announce message, including a source field having an identifier of the local node written therein, is transmitted from the local node that terminates the created link to the far end node that terminates the other end of the optical link. The far end node receiving the announce message then generates an echo message including a source field and an echo field, the source field having an identifier of the second node and resources thereof associated with the link. The echo field of the echo message includes an identifier of the local node and resources thereof associated with the link. An optical network for implementing the optical link adjacency discovery protocol is also provided.

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